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The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.
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C-A OPERATIONS PROCEDURES MANUAL

7.1.51 Purge of Cold Expander Inlet Filter

Text Pages 2 through 5

Hand Processed Changes

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Approved: _____ *Signature on File* _____
Collider-Accelerator Department Chairman Date

C. Salat

7.1.51 Purge of Cold Expander Inlet Filter

1. Purpose

To provide instruction for purging the cold expander inlet filters to remove air and moisture from the filters.

2. Responsibilities

2.1 The Shift Supervisor, or an operator designated by the Shift Supervisor, is responsible for conducting the procedure and providing documentation in the Cryogenic Control Room Log.

2.2 Should a problem arise in the process of purging an expander, the Shift Supervisor shall report to the Technical Supervisor for instructions before continuing.

3. Prerequisites

2.3 The filter must be offline while purging.

2.4 The pure helium supply line must be pressurized.

4. Precautions

If there is liquid in the refrigerator pots, all personnel entering the refrigerator wing of Bldg. 1005R must be ODH Class 1 qualified, have a Personal Oxygen Monitor (POM), and carry an emergency escape pack.

5. Procedure

2.5 Purge "A" filter as follows:

_____ 5.1.1 Ensure filter isolation valves H9158M_____ and H9161M_____ are closed.

_____ 5.1.2 Ensure filter purge valve H9160M is closed.

_____ 5.1.3 Align pure helium supply by closing valves H428M_____, H777M_____, and H6182M_____ and H377M_____ (located on upper level). Open valve H429M_____ (located on lower level).

_____ 5.1.4 Connect flex line to valve H6182M.

_____ 5.1.5 Purge flex line and connect to filter valve H9163M.

- _____ 5.1.6 Open valves H6182M____, H9162M____, H9159M____ and H9160M_____.
- _____ 5.1.7 Throttle valve H9163M to produce an audible purge.
- _____ 5.1.8 When vent piping is approximately ambient temperature, stop the purge by closing valves H9160M____, H9163M____, H9162M____ and H9159M_____.
- _____ 5.1.9 Close valve H6182M.

Warning:

Use caution when disconnecting the flex line, it will contain residual pressure.

- _____ 5.1.10 Disconnect flex line.
 - _____ 5.1.11 Open filter outlet valve H9161M as a sign that “A” filter is ready for service.
- 2.6 Purge “B” filter as follows:
- _____ 5.2.1 Ensure filter isolation valves H9150M____ and H9152M____ are closed.
 - _____ 5.2.2 Ensure filter purge valve H9153M is closed.
 - _____ 5.2.3 Align pure helium supply by closing valves H428M____, H777M____ and H6182M____, and H377M____ (located on upper level). Open valve H429M____ (located on lower level).
 - _____ 5.2.4 Connect flex line to valve H6182M.
 - _____ 5.2.5 Purge flex line and connect to filter valve H9153M.
 - _____ 5.2.6 Open valves H6182M____, H6174M____, H6173M____ and H9151M_____.
 - _____ 5.2.7 Throttle valve H9153M to produce an audible purge.
 - _____ 5.2.8 When vent piping is approximately ambient temperature, stop the purge by closing valves H9151M____, H9153M____, H6174M____ and H6173M_____.

_____ 5.2.9 Close valve H6182M.

Warning:

Use caution when disconnecting the flex line, it will contain residual pressure.

_____ 5.2.10 Disconnect flex line.

_____ 5.2.11 Open filter outlet valve H9152M as a sign that “B” filter is ready for service.

6. Documentation

2.7 The check off lines on the procedure are for place-keeping only. The procedure is not to be initialed or signed, it is not a record.

2.8 The Shift Supervisor, or designee, shall document the completion of the procedure in the Cryogenics Control Room Log.

7. References

2.9 Drawing 3A995009, 25 kw Helium Refrigerator P&ID.

8. Attachments

None